

Figure 1

201

## Processor Specification:

Requirements:

Memory space: 2 Gbytes

Address bus: 32 bits

Data bus: 32 bits

Internal registers: 12

Internal cache: 32 Mbytes

Task switch time: 2  $\mu$ secs

Cost: \$1.50

202

Desires:

Languages supported: C, C++, Java

Clock speed: 500 MHz

Architecture: RISC

203

Figure 2

300

Processor	Memory space	Address bus	Data bus	Internal registers	Internal cache	Task switch time	Cost	Languages	Clock speed	Architecture
MIPS32 M4K	4 Gbytes	32 bits	32 bits	24	16 Mbytes	2 $\mu$ secs	\$54.00	C, C++, Java, asm	500 MHz	RISC
ARM7TDMI	4 Gbytes	32 bits	32 bits	16	16 Mbytes	3 $\mu$ secs	\$22.00	C, C++, Java, asm	300 MHz	RISC
PowerPC 405	4 Gbytes	32 bits	32 bits	16	32 Mbytes	4 $\mu$ secs	\$65.00	C, C++, Java, asm	300 MHz	RISC
68HC11	64 Kbytes	16 bits	8 bits	4	0 Mbytes	1 $\mu$ secs	\$1.00	asm	10 MHz	CISC
8051	64 Kbytes	16 bits	32 bits	4	0 Mbytes	1 $\mu$ secs	\$0.50	C, asm	10 MHz	CISC

Figure 3

500

```

**** This is the normal header comments for the routine ****
**** . ****
**** . ****
**** . ****
**** The following information is required for the present invention ****
**** Driver information:
    Name: Ethernet driver
    Version: 1.01
    Hardware: ETH101
    Other:
**** . ****
EtherDriver(in1, in2, in3, out);
{
    // body of code
}

```

Figure 4

600

```
/** This is the normal header comments for the routine ****/  
****  
****  
****  
****  
**** The following information is required for the present invention ****/  
**** Driver information:  
    Name: USB driver  
    Version: 2.50  
    Hardware: Custom  
    HDL file: USB.v  
    Other:  
        ****/  
  
USBDriver(in1, in2, in3, out);  
{  
    // body of code  
}
```

601

602

603

Figure 5

```

600
**** This is the normal header comments for the routine
*****| 601
*****
*****
*****
**** The following information is required for the present
invention ****| 602
***** Driver information:
Name: USB driver
Version: 2.50
Hardware: Custom
HDL file: USB.v
Other:
*****| 603
*****| 604
USBDriver(in1, in2, in3, out);
(
    // body of code
)

```

Figure 6

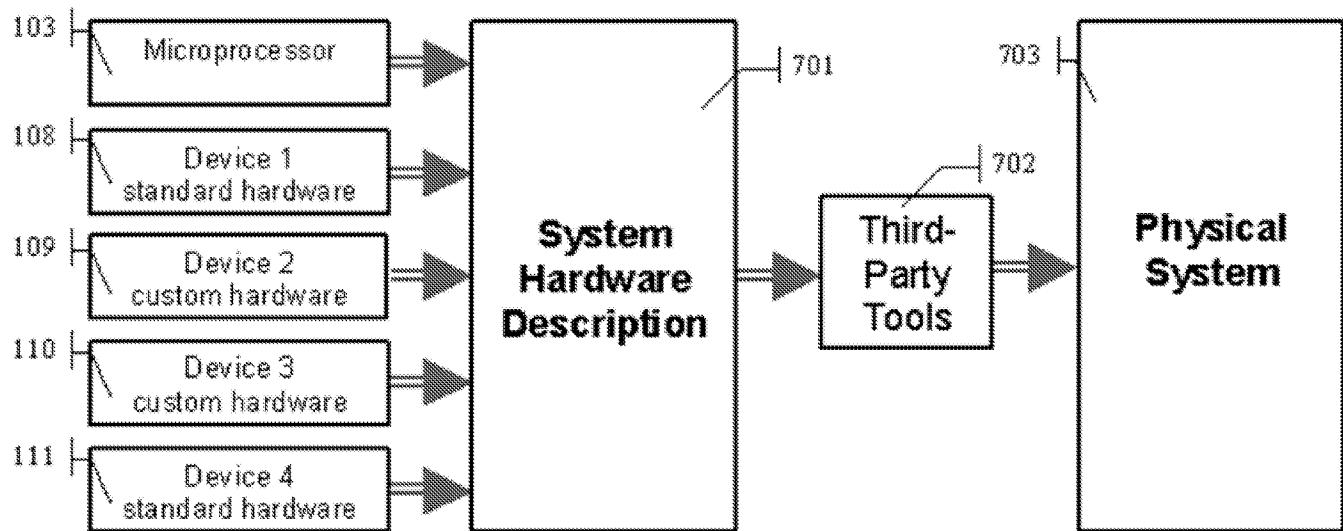


Figure 7

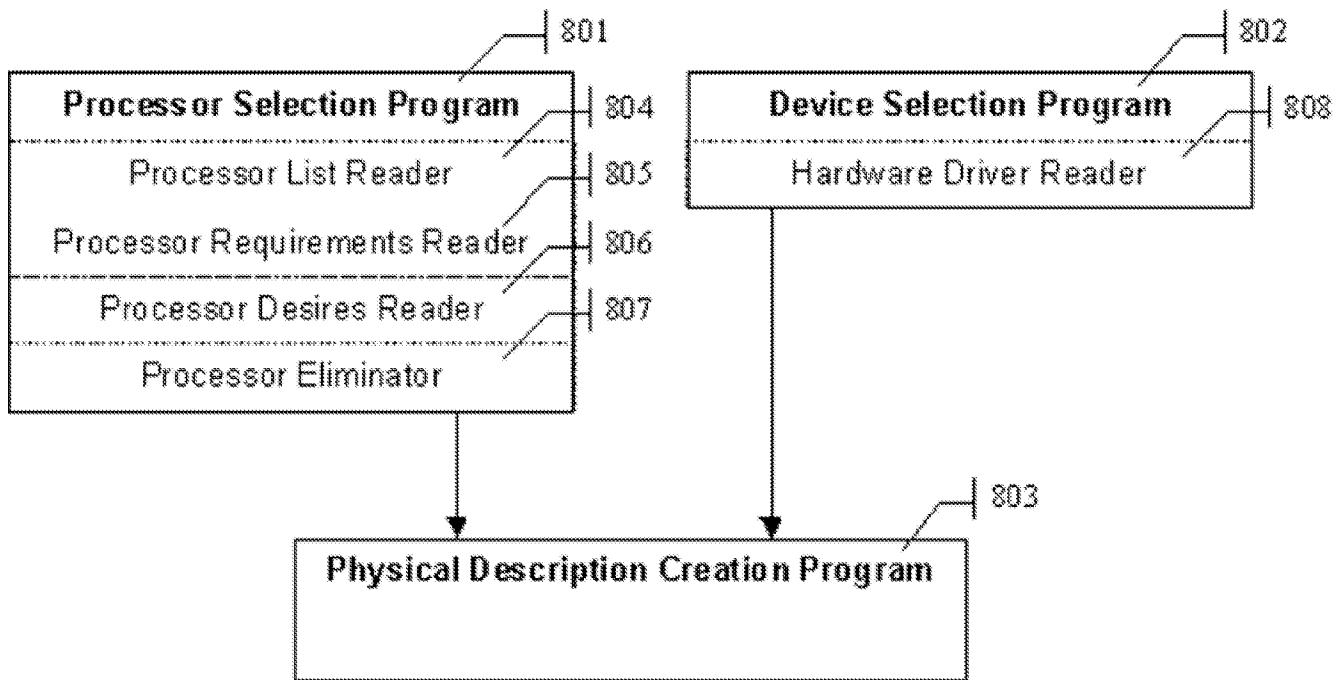


Figure 8

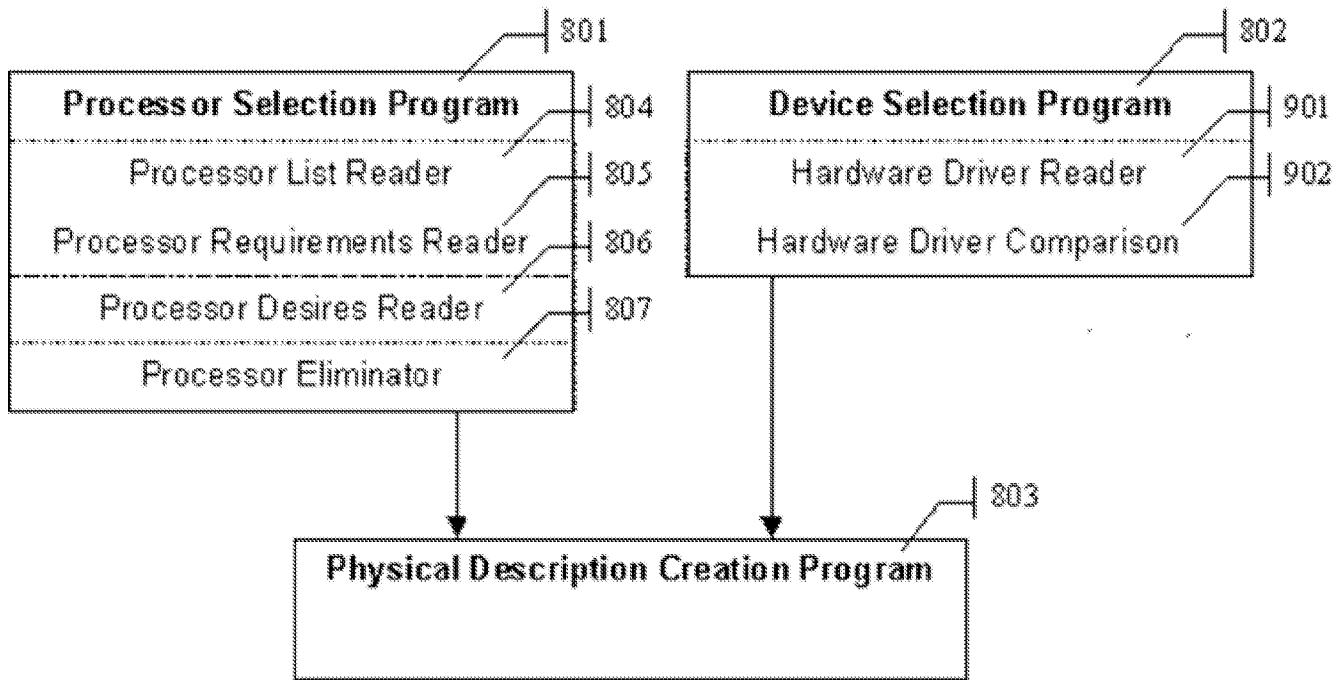


Figure 9